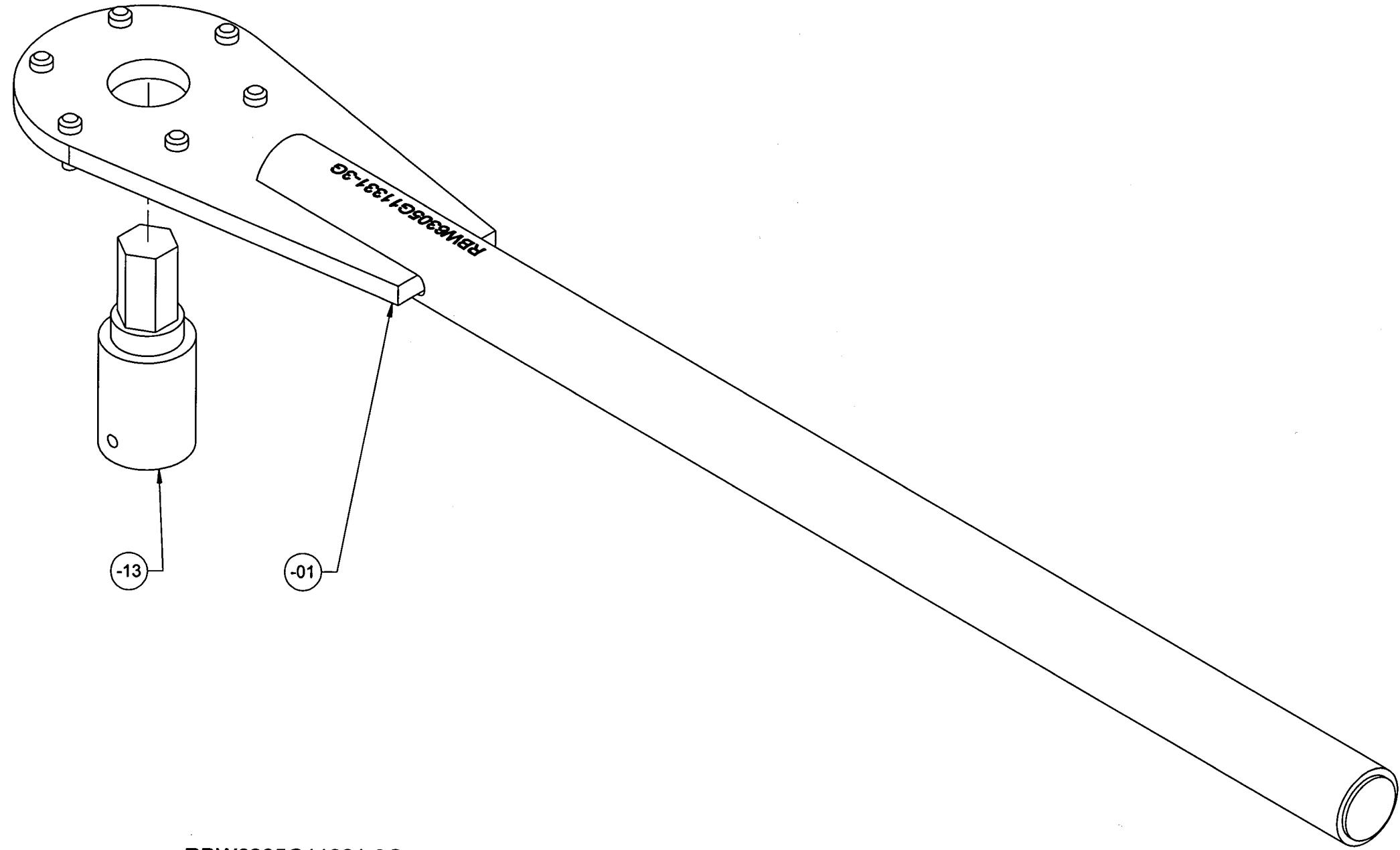


ITEM #	QTY	PART #	PART TITLE
-01	1	RBW6305G11331-3G-01	WRENCH WELDMENT
-13	1	RBW6305G11331-3G-13	SOCKET

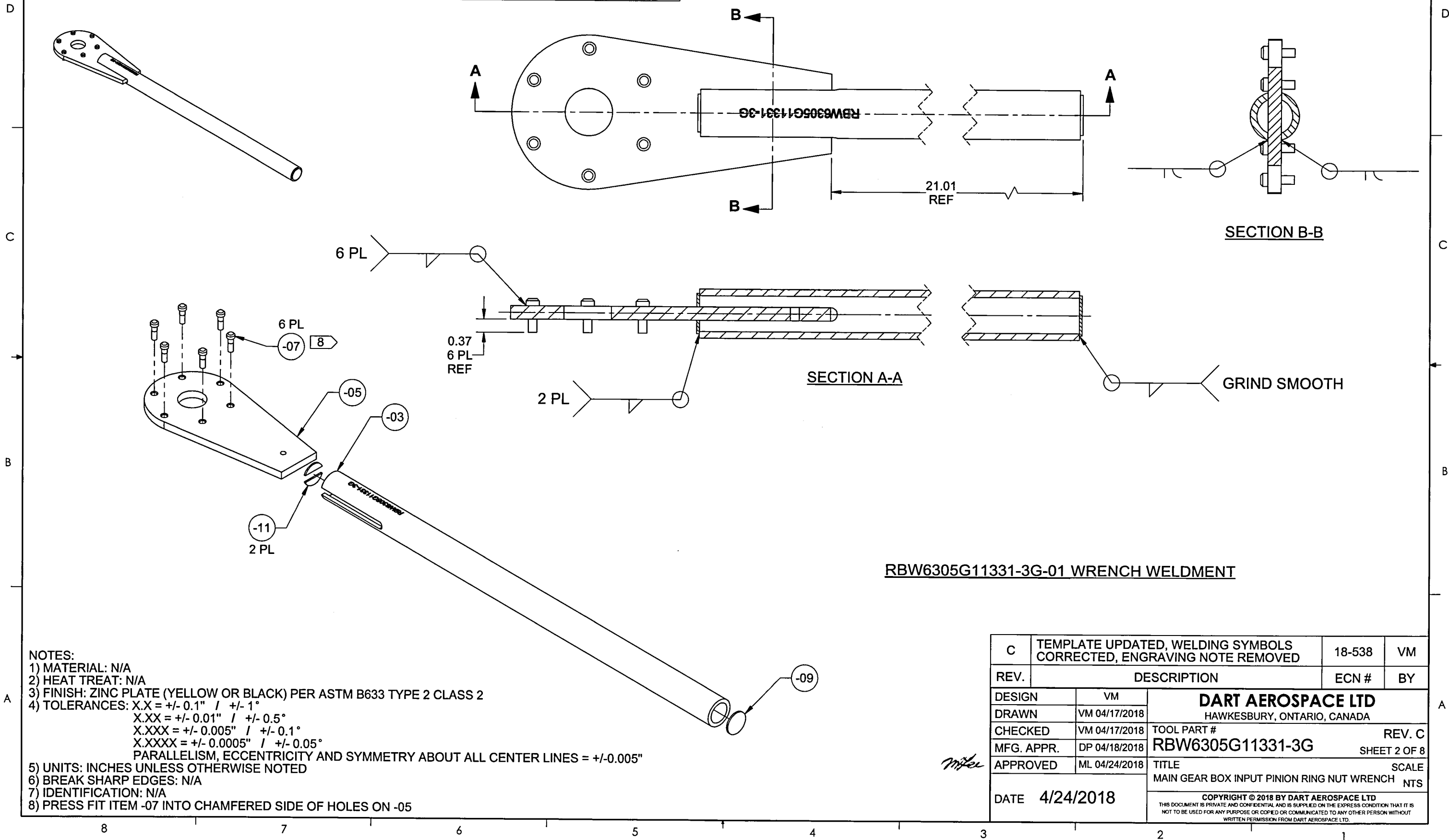


RBW6305G11331-3G MAIN GEAR BOX INPUT PINION RING NUT WRENCH

NOTES:
1) MATERIAL: N/A
2) HEAT TREAT: N/A
3) FINISH: N/A
4) TOLERANCES: X.X = +/- 0.1" / +/- 1°
X.XX = +/- 0.01" / +/- 0.5°
X.XXX = +/- 0.005" / +/- 0.1°
X.XXXX = +/- 0.0005" / +/- 0.05°
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/- 0.005"
5) UNITS: INCHES UNLESS OTHERWISE NOTED
6) BREAK SHARP EDGES: N/A
7) IDENTIFICATION: N/A

C	ITEM -13 SOCKET ADDED, TEMPLATE UPDATED	18-538	VM
REV.	DESCRIPTION	ECN #	BY
DESIGN	VM	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	VM 04/17/2018		
CHECKED	VM 04/17/2018	TOOL PART #	REV. C
MFG. APPR.	DP 04/18/2018	RBW6305G11331-3G	SHEET 1 OF 8
APPROVED	ML 04/24/2018	TITLE	SCALE
DATE 4/24/2018		MAIN GEAR BOX INPUT PINION RING NUT WRENCH	NTS
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ITEM #	QTY	PART #	PART TITLE
-03	1	RBW6305G11331-3G-03	HANDLE
-05	1	RBW6305G11331-3G-05	PLATE
-07	6	RBW6305G11331-3G-07	LUGS
-09	1	RBW6305G11331-3G-09	END CAP
-11	2	RBW6305G11331-3G-11	END CAP HALF



8 7 6 5 4 3 2 1

D

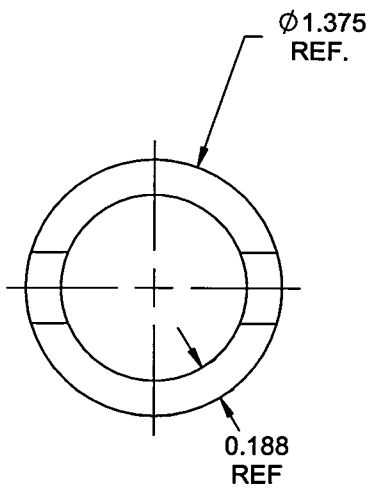
D

C

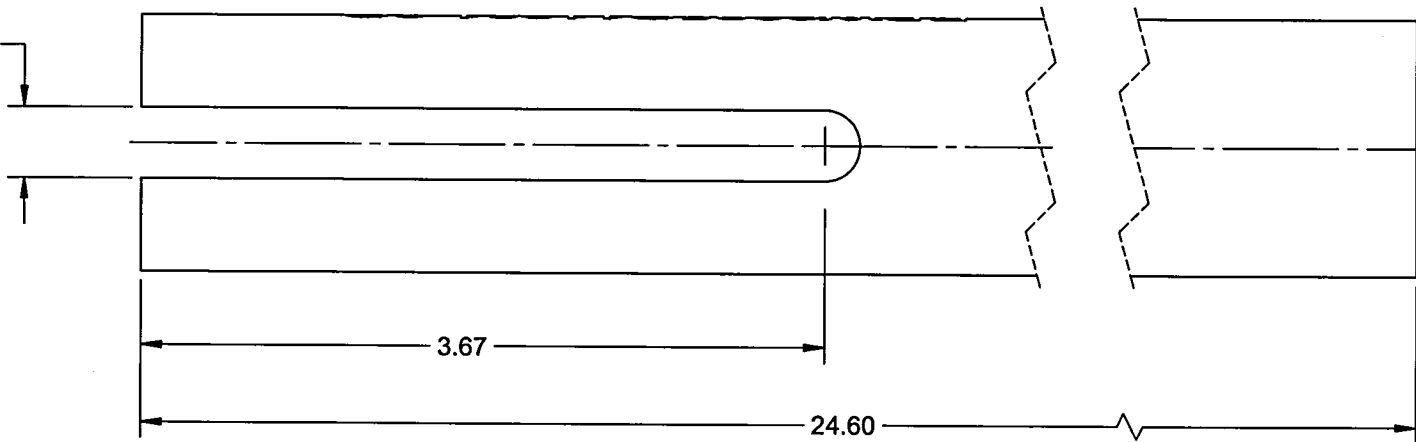
C

B

B



0.38^{+0.01}_{-0.00} THRU



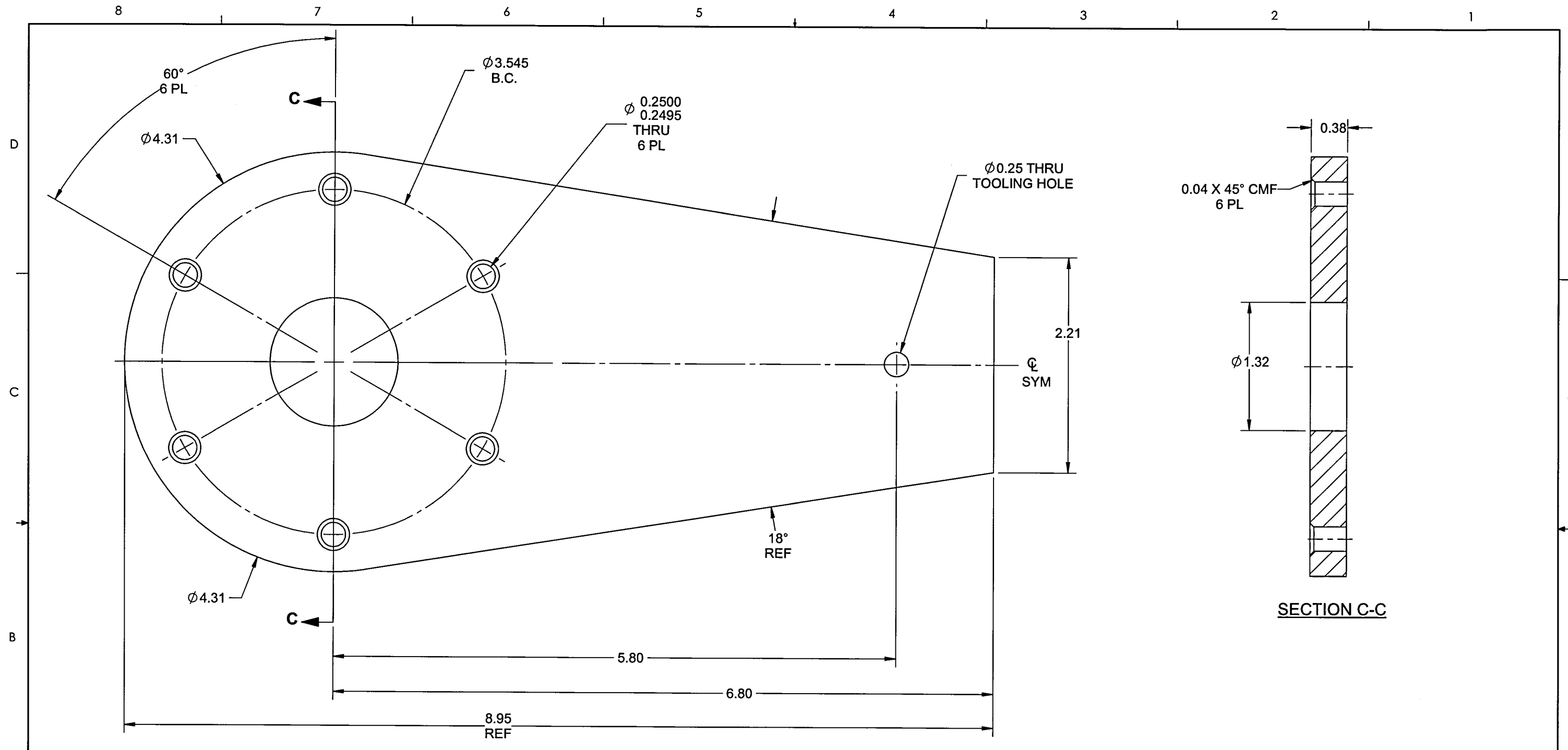
RBW6305G11331-3G-03 HANDLE

NOTES:

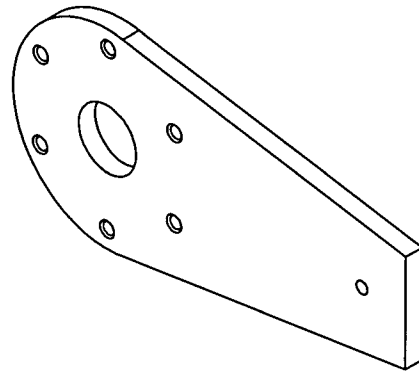
- 1) MATERIAL: McMaster#7767T65 OR EQUIV
- 2) HEAT TREAT: N/A
- 3) FINISH: N/A
- 4) TOLERANCES: X.X = +/- 0.1" / +/- 1°
X.XX = +/- 0.01" / +/- 0.5°
X.XXX = +/- 0.005" / +/- 0.1°
X.XXXX = +/- 0.0005" / +/- 0.05°
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/- 0.005"
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) BREAK SHARP EDGES: 0.005" TO 0.010"
- 7) IDENTIFICATION: MACHINE ENGRAVE PER CAD MODEL AS SHOWN OR DOT MARK T/N AS SHOWN

C	MATERIAL CHANGED FOR McM#, TEMPLATE UPDATED, ENGRAVING NOTE 7 ADDED, MADE IN USA & S/N REMOVED FROM ENGRAVING, DIMENSION .375 CHANGED FOR .38 +.01/-0		18-538	VM
REV.	DESCRIPTION		ECN #	BY
DESIGN	VM	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
DRAWN	VM 04/17/2018			
CHECKED	VM 04/17/2018	TOOL PART # RBW6305G11331-3G		REV. C SHEET 3 OF 8
MFG. APPR.	DP 04/18/2018			
APPROVED	ML 04/24/2018	TITLE MAIN GEAR BOX INPUT PINION RING NUT WRENCH		SCALE NTS
DATE 4/24/2018				
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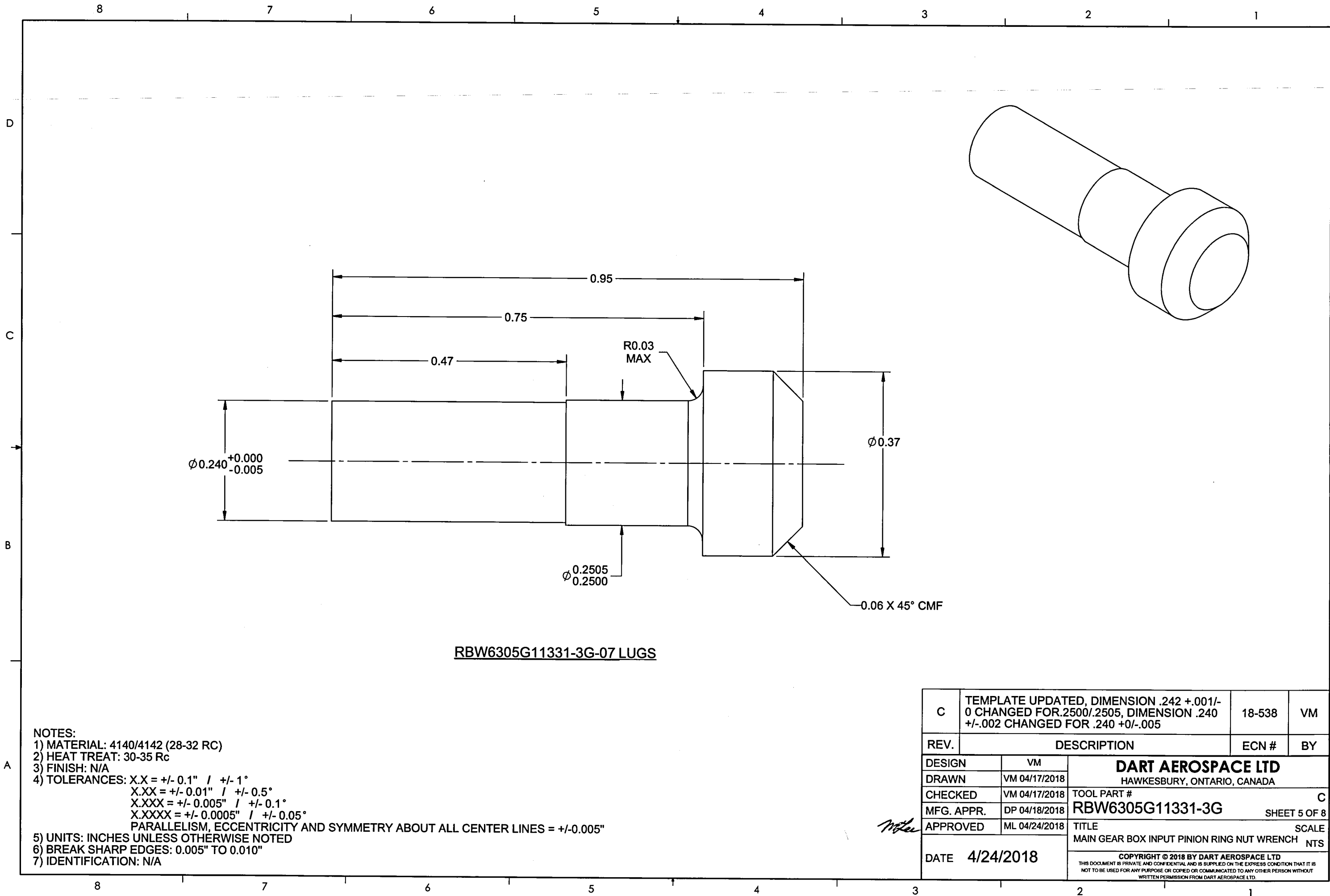
8 7 6 5 4 3 2 1



NOTES:
1) MATERIAL: 4140/4142 (28-32 RC)
2) HEAT TREAT: N/A
3) FINISH: N/A
4) TOLERANCES: X.X = +/- 0.1" / +/- 1°
X.XX = +/- 0.01" / +/- 0.5°
X.XXX = +/- 0.005" / +/- 0.1°
X.XXXX = +/- 0.0005" / +/- 0.05°
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/- 0.005"
5) UNITS: INCHES UNLESS OTHERWISE NOTED
6) BREAK SHARP EDGES: 0.005" TO 0.010"
7) IDENTIFICATION: N/A



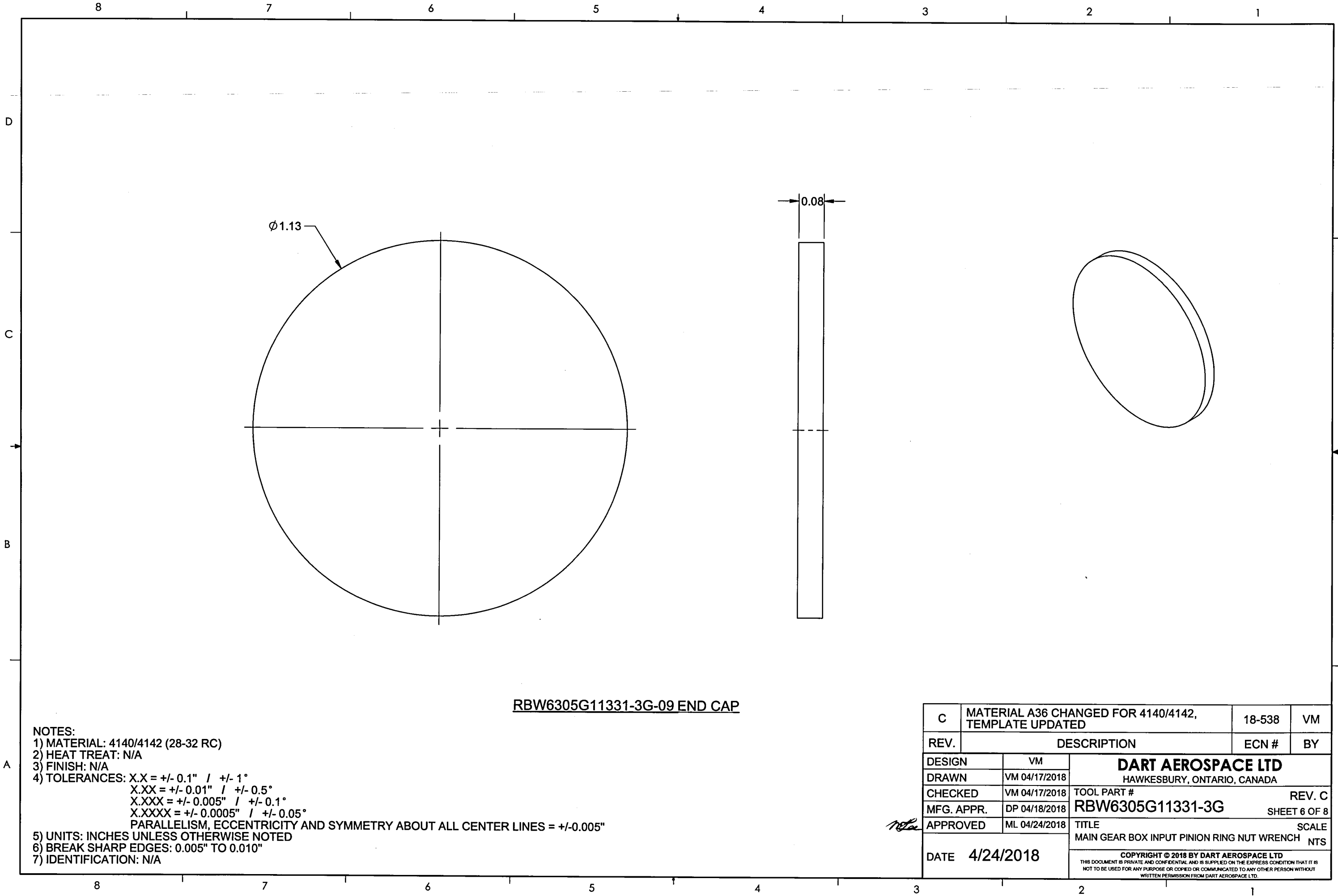
C	TEMPLATE UPDATED, DIMENSION 3.545 B.C ADDED, SYMBOL CL SYM ADDED, DIMENSION 8.95 CHANGED FOR REF AND DIMENSION 6.80 ADDED		18-538	VM
REV.	DESCRIPTION		ECN #	BY
DESIGN	VM	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
DRAWN	VM 04/17/2018			
CHECKED	VM 04/17/2018	TOOL PART # RBW6305G11331-3G		REV. C
MFG. APPR.	DP 04/18/2018			SHEET 4 OF 8
APPROVED	ML 04/24/2018	TITLE MAIN GEAR BOX INPUT PINION RING NUT WRENCH		SCALE NTS
DATE 4/24/2018				
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RBW6305G11331-3G-07 LUGS

NOTES:
1) MATERIAL: 4140/4142 (28-32 RC)
2) HEAT TREAT: 30-35 Rc
3) FINISH: N/A
4) TOLERANCES: X.X = +/- 0.1" / +/- 1°
X.XX = +/- 0.01" / +/- 0.5°
X.XXX = +/- 0.005" / +/- 0.1°
X.XXXX = +/- 0.0005" / +/- 0.05°
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/- 0.005"
5) UNITS: INCHES UNLESS OTHERWISE NOTED
6) BREAK SHARP EDGES: 0.005" TO 0.010"
7) IDENTIFICATION: N/A

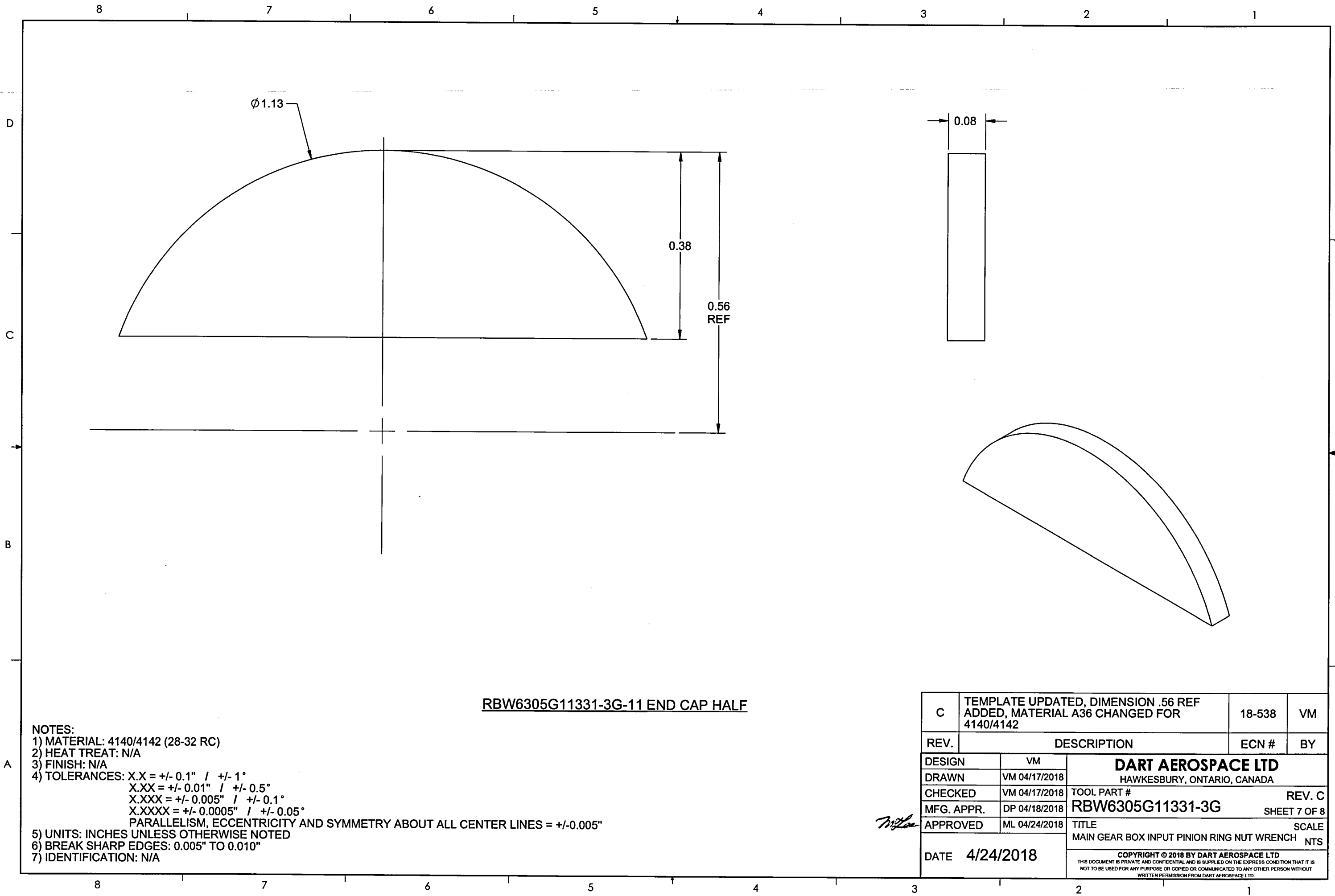
C	TEMPLATE UPDATED, DIMENSION .242 +.001/-0 CHANGED FOR .2500/.2505, DIMENSION .240 +/- .002 CHANGED FOR .240 +0/- .005		18-538	VM
REV.	DESCRIPTION		ECN #	BY
DESIGN	VM	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
DRAWN	VM 04/17/2018			
CHECKED	VM 04/17/2018	TOOL PART #	C SHEET 5 OF 8	
MFG. APPR.	DP 04/18/2018	RBW6305G11331-3G		
APPROVED	ML 04/24/2018	TITLE	SCALE	
DATE 4/24/2018		MAIN GEAR BOX INPUT PINION RING NUT WRENCH	NTS	
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RBW6305G11331-3G-09 END CAP

NOTES:
1) MATERIAL: 4140/4142 (28-32 RC)
2) HEAT TREAT: N/A
3) FINISH: N/A
4) TOLERANCES: X.X = +/- 0.1" / +/- 1°
 X.XX = +/- 0.01" / +/- 0.5°
 X.XXX = +/- 0.005" / +/- 0.1°
 X.XXXX = +/- 0.0005" / +/- 0.05°
 PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/-0.005"
5) UNITS: INCHES UNLESS OTHERWISE NOTED
6) BREAK SHARP EDGES: 0.005" TO 0.010"
7) IDENTIFICATION: N/A

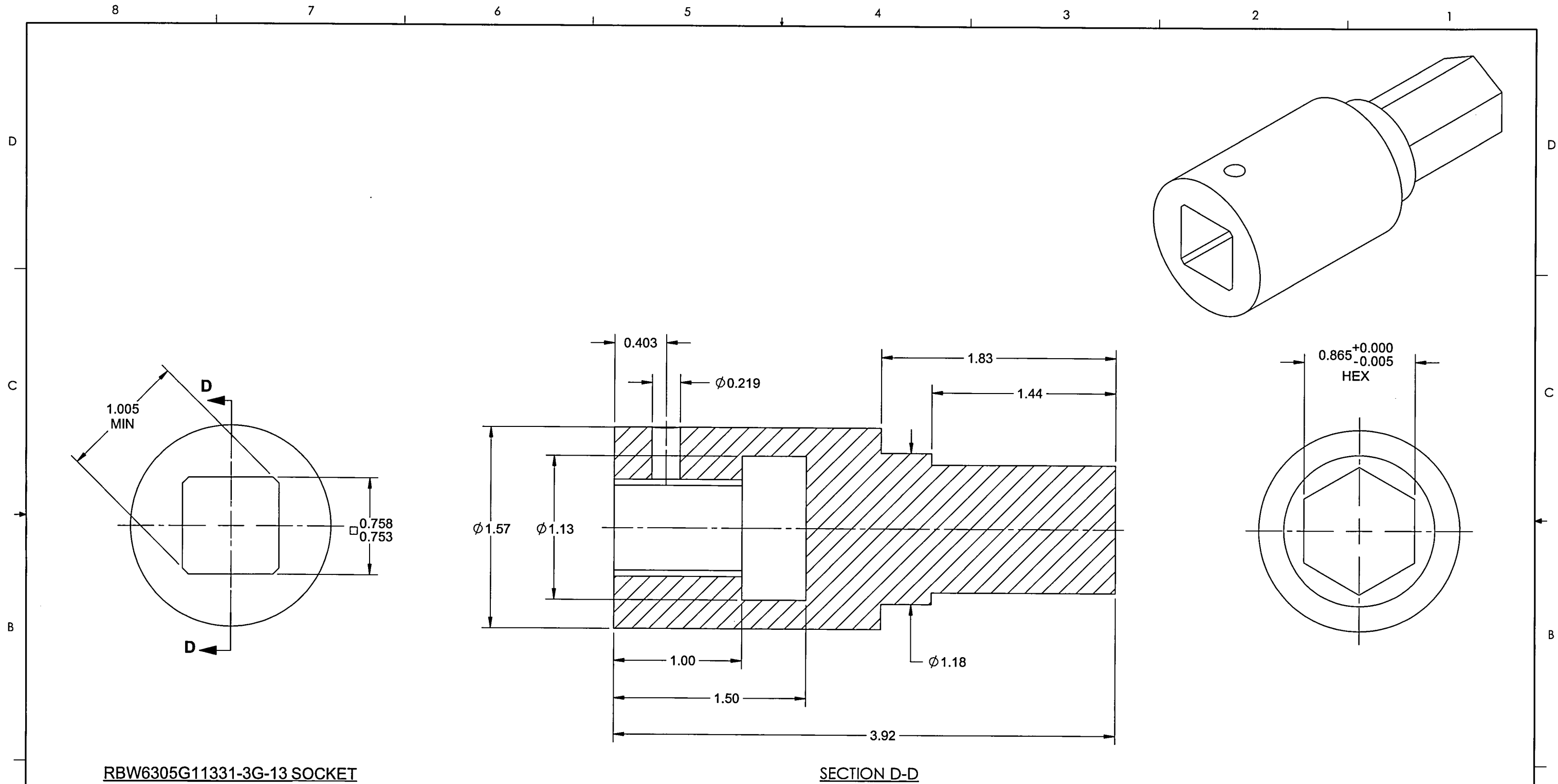
C	MATERIAL A36 CHANGED FOR 4140/4142, TEMPLATE UPDATED		18-538	VM
REV.	DESCRIPTION		ECN #	BY
DESIGN	VM	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
DRAWN	VM 04/17/2018			
CHECKED	VM 04/17/2018	TOOL PART #	REV. C	
MFG. APPR.	DP 04/18/2018	RBW6305G11331-3G	SHEET 6 OF 8	
APPROVED	ML 04/24/2018	TITLE	SCALE	
DATE 4/24/2018		MAIN GEAR BOX INPUT PINION RING NUT WRENCH	NTS	
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NOTES:
1) MATERIAL: 4140/4142 (28-32 RC)
2) HEAT TREAT: N/A
3) FINISH: N/A
4) TOLERANCES: X.X = +/- 0.1" / +/- 1°
X.XX = +/- 0.01" / +/- 0.5°
X.XXX = +/- 0.005" / +/- 0.1°
X.XXXX = +/- 0.0005" / +/- 0.05°
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/- 0.005"
5) UNITS: INCHES UNLESS OTHERWISE NOTED
6) BREAK SHARP EDGES: 0.005" TO 0.010"
7) IDENTIFICATION: N/A

RBW6305G11331-3G-11 END CAP HALF

C	TEMPLATE UPDATED, DIMENSION .56 REF ADDED, MATERIAL A36 CHANGED FOR 4140/4142		18-538	VM
REV.	DESCRIPTION		ECN #	BY
DESIGN	VM	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
DRAWN	VM 04/17/2018			
CHECKED	VM 04/17/2018	TOOL PART # RBW6305G11331-3G		REV. C
MFG. APPR.	DP 04/18/2018			SHEET 7 OF 8
APPROVED	ML 04/24/2018	TITLE MAIN GEAR BOX INPUT PINION RING NUT WRENCH		SCALE NTS
DATE 4/24/2018				
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NOTES:
1) MATERIAL: 4140/4142 (28-32 RC)
2) HEAT TREAT: N/A
3) FINISH: ZINC PLATE (YELLOW OR BLACK) PER ASTM B633 TYPE 2 CLASS 2
4) TOLERANCES: X.X = +/- 0.1" / +/- 1°
X.XX = +/- 0.01" / +/- 0.5°
X.XXX = +/- 0.005" / +/- 0.1°
X.XXXX = +/- 0.0005" / +/- 0.05°
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/- 0.005"
5) UNITS: INCHES UNLESS OTHERWISE NOTED
6) BREAK SHARP EDGES: 0.005" TO 0.010"
7) IDENTIFICATION: N/A

C	MISSING PART ADDED	18-538	VM
REV.	DESCRIPTION	ECN #	BY
DESIGN	VM	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	VM 04/17/2018		
CHECKED	VM 04/17/2018	TOOL PART #	REV. C
MFG. APPR.	DP 04/18/2018	RBW6305G11331-3G	SHEET 8 OF 8
APPROVED	ML 04/24/2018	TITLE	SCALE
DATE 4/24/2018		MAIN GEAR BOX INPUT PINION RING NUT WRENCH	NTS
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DQA: _____

Date: 17 MAY 2018

12 JUN 18

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____

Date: _____

Work Order update only ☐

Work Order: _____ Part No. <u>RBW6305G11331-3G</u> NCR No. _____		DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Cross tube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </div> <div> Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> </div> </div>							
Date : _____		Step #: _____		QTY Effective : _____		MRB (QSI042) Approval <u>JUNE 12 / 2018</u>					
Description Work Order Deviation				Disposition							
MATERIAL TYPE TO BE CHANGED FOR - RBW6305G11331-3G-09 END CAP - RBW6305G11331-3G-11 END CAP HALF - REVISE MATERIAL FROM 4140/4142(28-32 Rc) TO 4130				- THIS DEVIATION IS ACCEPTABLE - THE FIT, FORM AND FUNCTION OF THE PART WILL BE AS ORIGINALLY INTENDED.				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval			
Root Cause		FAULT CATEGORY									
Environment	<input type="checkbox"/>	No Re-verification	<input type="checkbox"/>	Pressure/Forced	<input type="checkbox"/>	Temperature/Cure	<input type="checkbox"/>	Power Loss/Surge	<input type="checkbox"/>	Positioned Wrong	<input type="checkbox"/>
Design	<input checked="" type="checkbox"/>	Operator	<input type="checkbox"/>	Bending	<input type="checkbox"/>	Set-up	<input type="checkbox"/>	Folio/Program	<input type="checkbox"/>	Outside Dimensions	<input type="checkbox"/>
Doc/Data	<input type="checkbox"/>	Offset/Setup	<input type="checkbox"/>	Centre Not Concentric	<input type="checkbox"/>	BOM/Route	<input type="checkbox"/>	Grain	<input type="checkbox"/>	Over/Under tolerance	<input type="checkbox"/>
Equip/Tooling	<input type="checkbox"/>	Supplier	<input type="checkbox"/>	Cracks	<input type="checkbox"/>	Broken/Damage/Defect	<input type="checkbox"/>	Weld	<input type="checkbox"/>	Part Incorrect	<input type="checkbox"/>
Handling/Pre	<input type="checkbox"/>	Training	<input type="checkbox"/>	Crimp/Kink/Ripple/Wave	<input type="checkbox"/>	Inspection Incomplete/Unqualified	<input type="checkbox"/>	Wrong Stock Pulled	<input type="checkbox"/>	Part Lost/Missing	<input type="checkbox"/>
Material	<input type="checkbox"/>	Use for Testing	<input type="checkbox"/>	Cuffs	<input type="checkbox"/>	Contamination	<input type="checkbox"/>	Out of Sequence	<input type="checkbox"/>	Part Moved	<input type="checkbox"/>
Internal Transport	<input type="checkbox"/>	Poor Information	<input type="checkbox"/>	Crushing	<input type="checkbox"/>	Countersink	<input type="checkbox"/>	Off-set	<input type="checkbox"/>	Drawing	<input type="checkbox"/>
Tribal Knowledge	<input type="checkbox"/>	Rushing	<input type="checkbox"/>	Heat Treat	<input type="checkbox"/>	Cut Too Short	<input type="checkbox"/>	Mislabeled	<input type="checkbox"/>	Finish	<input type="checkbox"/>
LOA	<input type="checkbox"/>	Product Improvement	<input type="checkbox"/>	Wave/Twist in Tube	<input type="checkbox"/>	Instructions Incomplete/Unclear	<input type="checkbox"/>	Fit/Function	<input type="checkbox"/>	Misread	<input type="checkbox"/>
Substation	<input checked="" type="checkbox"/>	Process Improvement	<input type="checkbox"/>	Marks/Chatter	<input type="checkbox"/>	Drill Holes	<input type="checkbox"/>	Misaligned/off center	<input type="checkbox"/>	Turning Sequence	<input type="checkbox"/>
Past Expiry Date	<input type="checkbox"/>	Manufacturing Process	<input type="checkbox"/>	OTHER : _____							
Misidentified	<input type="checkbox"/>	Past Due	<input type="checkbox"/>								